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ABSTRACT

Training methods naturally employed by trainers were analyzed and compared to systematic structured training procedures. Trainers were observed teaching retarded subjects how to assemble a bicycle brake, roller skate, carburetor, and lawn mower engine. Trainers first taught using their own (personal) method, which was recorded in terms of types of prompts given, timing of prompts (before or after responses), and type of task sequencing (whole task or chaining methods). Trainers were then required to teach by using either a Structured Whole Method (whole task presentation with prompts given for error correction) or Backward Chaining (last parts taught first using prompts to cue subject responding). Three trainers' personal methods consisted of whole task presentation, one trainer used forward chaining, and two trainers used a combination of whole and chaining. The most effective procedure was the Backward Chaining Method, followed by the forward chaining procedure used spontaneously by one trainer, and the combination of whole and chaining methods. The least effective procedure was the Structured Whole Method. Results indicated that the effectiveness of training procedures was due to both the timing of prompts and type of task sequencing. (Author)

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How Good are Trainers' Personal Methods Compared to Two Structured Training Strategies?

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How Good are Trainers' Personal

Methods Compared to Two

Structured Training Strategies?

Trainers have proposed and used several approaches when teaching various types of skills to mentally retarded or learning handicapped clients. Some such strategies include emphasis on response contingent consequences (Rowbury, Baer, & Baer, 1976; White, 1975), reinforcement of successive approximations (Horner, 1971, Jackson & Wallace, 1974), physical prompting (Baer, Peterson, & Sherman, 1967; Striefel, Bryan, & Aikins, 1974), visual prompting or modeling (Dorry, 1976; Nelson, Cone, & Hanson, 1975), auditory prompting (Levy, Pomerantz, & Gold, 1977; Striefel & Wetherby, 1973), whole method (Blake & Williams, 1969; Nettelbeck & Kirby, 1976), and part (chaining) methods (Baker, Brightman, Heifetz, & Murphy, 1976; Fredericks, Riggs, Furey, Grove, Moore, McDonnell, Jordan, Hanson, Baldwin, & Wadlow, 1976). These training strategies have been used singly or in combination to facilitate learner acquisition.

Using such approaches, trainers have trained clients to master vocational tasks. Clarke and Heremelin (1955) used auditory prompts and demonstration to teach retarded adults cutting, soldering, and assempling a complex task. Crosson (Note 1) taught severely retarded adults drill press operation by sequencing discrete responses, modeling the sequence, prompting clients to perform the sequence, and reinforcing successive approximations. Bellamy, Peterson, and Close (1975) used verbal, physical, and modeling prompts to correct errors made by profoundly retarded adults in assembling a 19 piece cam switch actuator. Thus, trainers have prompted both to increase the probability of an initial correct response and to cue a correction response

following an error. Gold (1976) combined physical guidance prompts with the auditory, "try another way," to correct errors in bicycle brake assembly made by retarded clients. He used a whole task approach, in which all parts of the brake were put together on each training trial. Walls, Zane, and Ellis (in press) found backward and forward chaining (with physical prompts given after errors) to be more effective (in terms of errors) than whole task training when teaching retarded clients complex assembly tasks. While backward chaining resulted in fewer errors than forward chaining, no practical difference occurred between the two.

Although these studies have experimentally demonstrated the effectiveness of structured training methods, little has been reported on trainer behaviors as they naturally occur. Classroom observation of teachers has yielded categories of verbal behavior exhibited by the teachers (Amidon & Hough, 1967). For example, White (1975) reported that the natural rates of teacher approval and disapproval decreased and increased, respectively, after second grade. However, the precise nature of prompts, sequencing, and consequences typically used by trainers working with mentally handicapped clients has not been specified. While these variables have been manipulated in teaching vocationally related tasks, the focus has been demonstration that such techniques facilitate client learning (Bellamy, Inman, & Schwarz, 1978) rather than specification of which methods are actually used by trainers.

With several training approaches available, what techniques and combinations are trainers in the field using? Since systematic instruction, particularly chaining, has effectively facilitated learning of laboratory and applied tasks, trainers' personal methods would appear to be most effective to the extent that such structured approaches were used. The

purpose of the present investigation was first, to evaluate teacher's current training skills in terms of what type of training behaviors are exhibited, and second, to isolate those training behaviors which are associated with particularly favorable client performance. The teaching strategies of trainers from several special education facilities were analyzed, and their own methods of teaching were compared with two structured methods (whole task and backward chaining) in terms of effectiveness (time to acquisition and number of errors).

Method

Subjects

The subjects were 6 trainers (4 male and 2 female) employed by the Baltimore Association for Retarded Citizens. Their number of years of full time work with mentally handicapped clients ranged from six months to 7.5 years with a mean of 3.25 years. Four trainers worked at different activity centers in the Baltimore area, one worked in a state hospital, and one was a college practicum student.

Each subject (trainer) worked with the same two clients each day; there were thus 12 clients involved. The six male and six female clients were labeled mentally retarded. IQ scores ranged from 24 to 55 with a mean of 43.6.

Informed consent was obtained from both clients and trainers. Clients received the minimum wage for their participation, but trainers participated as part of their regular duties. Clients and trainers understood that they could withdraw from the study at any time.

Setting

The investigation was conducted at a summer camp for retarded citizens. Experimental sessions were held in a room approximately 9 m x 11 m furnished with three tables and nine chairs. During training sessions

one client sat at each table with one of the trainers and one of the experimenters. The clients sat facing different corners of the room. During training, five of the trainers chose to sit facing the client, and one chose to sit beside the client.

Apparatus

Clients put together four different assemblies. Each assembly consisted of eight parts. The assemblies were a Briggs and Stratton lawn mower engine, a Chicago roller skate, a Carter carburetor, and a Schwinn bicycle brake. A correct assembly was defined as all eight parts placed together in their correct positions.

Design

A modified multiple baseline design (based on learning criterion rather than baseline stabilization) was used to examine the effects of three methods of training on client learning. Trainers were assigned randomly to teach by their Personal Method for 1, 2, or 3 days and then to teach the remaining day(s) by either a Structured Whole Method or a Backward Chaining Method. This arrangement is represented in Table 1. As may be noted in that table, Trainers 1, 2, and 3 trained by their Personal Method followed by the Structured Whole Method. Trainers 4, 5, and 6 trained by their Personal Method followed by the Backward Chaining Method.

Insert Table 1 about here

Training Methods

The three training methods compared were termed Personal Method, Structured Whole Method, and Backward Chaining Method.

Personal Method. For this method, trainers were instructed to teach the clients how to put together the assemblies using any type of teaching strategy desired. The trainers were told, "You can teach it any way you want to. We want you to use your own way of teaching. Any way you like or any way that you usually use is OK."

Structured Whole Method. When teaching by this method, the trainer presented all eight parts of the assembly to the client, and required complete assembly during each attempt. The Structured Whole Method began by the trainer demonstrating how to put the assembly together without any verbal description. The trainer then disassembled the task behind a screen, mixed the parts, removed the screen, and instructed the client to "Try to put it together." No help was given to the client until the trainer determined that an error in either selection or placement of a part had occurred. Following each error, the trainer: (a) stopped the client's progress, (b) picked up the correct part, (c) placed it properly while describing the correct response, (d) removed the part and placed it on the table, and (e) physically guided the client in making the correct response. Each new attempt began by the trainer disassembling and mixing the parts behind the screen.

Backward Chaining. When teaching by this method, the trainer required the client to put the remaining part(s) on a partially completed assembly, starting with the last part, then the last two parts, and so on. The trainer first demonstrated how to put the assembly together without any verbal description. Then behind the screen, the trainer took off the last part, placed it on the table, removed the screen, and, while modeling the response, described how to complete the assembly with that part. The trainer then removed the same

part and physically guided the client in making the correct response. On the next attempt, the trainer took off the last two parts. After describing, demonstrating, and physically prompting the placement of the second from last part, the trainer then required the client to complete the assembly (put on the last part) without assistance. On each attempt thereafter, all of the previously used parts plus one additional part were removed and mixed behind the screen. After auditory, visual, and tactile prompting for selection and placement of the new part, the client attempted to finish the assembly unassisted. When the trainer determined that an error in either selection or placement of a part had been made, the trainer: (a) stopped the client's progress, (b) picked up the correct part, (c) demonstrated proper placement without saying anything, (d) removed that part and placed it on the table, and (e) allowed the client to make the correct response unassisted. If an error was made, that attempt was repeated; i.e., the next trial consisted of using the same number of parts.

Thus, the Personal Method involved the trainer using any teaching strategy he or she desired. The Structured Whole Method required the assembly of all parts on each attempt, and the trainer gave assistance contingent upon client errors. In using the Backward Chaining Method, the trainer gave assistance (i.e., auditory, visual, and tactile prompts) prior to client attempts, and on each attempt, required the client to complete the assembly by adding the last part, the last two parts, the last three parts, and so on. The Structured Whole Method and Backward Chaining Method differed in terms of task sequencing, types of prompts and timing of prompts. These methods were selected to provide a basis for comparison with the trainers' personal methods.

Procedure

A training day consisted of a trainer working with two clients, one at a time, on one assembly. Each trainer taught a different assembly on each of four consecutive days. The assemblies were counterbalanced across days so that each trainer taught a different order of the four assemblies.

To begin each day, the trainer was told which method to use (either Personal Method, Structured Whole Method, or Backward Chaining Method). Then the trainer was taught how to correctly put together the assembly by the teaching method to be used that day. A cue card summarizing the Backward Chaining Method or Structured Whole Method was provided and remained in front of the trainer when using these methods. Trainers closely followed these methods and rarely required reminders by the experimenter.

In an effort not to bias the trainer's Personal Method, minimal assistance was given to the trainer when learning how to put together an assembly. When teaching the trainers in this condition, the completed assembly was presented, and the trainer was told to take it apart, noting how the parts went together. If the trainer made an error in assembly, the experimenter corrected the error behind the screen and allowed the trainer to continue assembly.

Once the trainer completed the assembly three consecutive times without error, he or she began client training. This criterion was applied to trainers for all three teaching methods.

After the trainer learned the assembly and teaching strategy, a client was seated at the table. The client attempted to assemble the task during a three minute baseline trial. The purpose of the baseline trial was to

determine if the client could put together the assembly unaided. For the baseline trial the trainer presented the parts in a mixed order on the table and gave no assistance. No client correctly completed any assembly during baseline.

After the baseline trial, the trainer taught the client to complete the assembly by the prescribed method (Personal Method, Structured Whole Method, Backward Chaining Method). Training continued until the client completed the assembly on two consecutive attempts without error (learning criterion). A criterion trial was an attempt in which the trainer mixed all parts behind the screen and gave no assistance. If criterion was not reached in 75 minutes of training, the session was terminated for that client for that day.

The experimenter did not assist in client training but served only as an observer. While the trainer taught, the experimenter recorded: (a) prompts (pre-response and correction), (b) praise and reprimands, (c) errors, and (d) time.

a. Prompts were recorded as either auditory, visual, or tactile. An auditory prompt occurred when the trainer told the client which part to pick up or where to place it. A visual prompt occurred when the trainer pointed, gestured, or showed which part to use or how to place a part on the assembly. A tactile prompt occurred when the trainer physically guided the client to pick up or place a part. These prompts occurred individually and in combination. For example, if the trainer described how to place a part while actually demonstrating how to do it, both an auditory and visual prompt were scored. Only one auditory, visual, and/or tactile prompt was scored per client response.

Pre-response prompts were any prompts the trainer gave before the client responded, to cue that particular client response. Correction prompts were prompts given after a client error to cue the subsequent correction response.

b. Praise and reprimands were scored after a client response when the trainer told the client whether the response was right or wrong without giving any information about what to do. Praise consisted of comments such as "good," "fine," and "nice job." Reprimands consisted of statements such as "no" and "that's wrong."

c. Errors were scored when the trainer corrected the client's selection or placement of a part. This was necessary to allow the trainers' own method of training to operate normally. Permitting the trainers to determine errors was sensitive to actual client performance since the trainers were familiar with the task and at no time did a trainer allow a client to build an incorrect assembly.

d. Time was recorded for the complete training session. A stop watch was started after baseline concluded and was stopped when the client completed the second consecutive criterion trial.

Reliability

There were six interobserver reliability checks, two on each experimenter. Each reliability check consisted of the experimenter observing and recording data as usual, and a second independent observer recording simultaneously. These reliability checks involved six clients and all three training methods. The percentage of scoring reliability was calculated by totaling all occurrences across auditory, visual, and tactile prompts, consequences, and errors for both observers. Reliability was computed by dividing the smaller number of occurrences by the larger number of occurrences, multiplied by 100. Reliabilities for the six sessions ranged from 87% to 100%, with a mean of 92.3%.

Results

Results of training are presented in Table 2 for prompts, consequences, errors, and time. These data are summarized for each trainer's Personal Method as well as either the Structured Whole Method or the Backward Chaining Method. Entries in the table are means for that method across all days taught by that same method. For example, 41 auditory pre-response prompts for Trainer 2 represents the mean across two days of teaching both clients by that trainer's Personal Method; 33 auditory pre-response prompts for Trainer 4 represents the one day total by that trainer's Personal Method (since that trainer used the Personal Method only one day).

Figure 1 depicts total time and errors involved in training the clients each day for each trainer.

Insert Figure 1 and Table 2 about here

Trainer 1

Trainer 1's Personal Method produced only half as many errors as the Structured Whole Method (13:25) (see Table 2 and Figure 1). This trainer's method consisted of a forward chaining procedure in which only the first three parts of the apparatus were trained to mastery before adding additional parts. Many more pre-response than correction prompts were used (8:1 ratio). No tactile pre-response prompts but five tactile correction prompts were used. The Structured Whole Method required about 15 minutes less time than the trainer's own method but yielded more errors. Unlike the trainer's method and because of the nature of the Structured Whole Method, there were twice

as many correction as pre-response prompts. In sum, the trainer's forward chain method using many auditory and visual pre-response prompts facilitated client mastery with fewer errors in approximately 15 more minutes than the Structured Whole Method.

Trainer 2

Trainer 2's Personal Method produced only a third as many errors as the Structured Whole Method (9:26). This trainer's approach consisted of a whole method in which all parts of the apparatus were assembled during each attempt. Many more pre-response than correction prompts were used (10:1 ratio). This trainer gave many more visual than auditory pre-response prompts, and no tactile prompts. The Structured Whole Method required about the same average time as the trainer's Personal Method, but yielded more errors. Again, because of the nature of the Structured Whole Method, twice as many correction as pre-response prompts occurred. Thus, the trainer's whole method utilized more auditory and visual pre-response prompts than the Structured Whole Method. This resulted in client mastery with fewer errors in approximately the same amount of time.

Trainer 3

Trainer 3's Personal Method produced only one-fifth as many errors as the Structured Whole Method (57:281). This trainer taught by a combination of chaining and whole procedures. These combinations were unsystematic with 2 parts, 8 parts, 5 parts, 3 parts, and so on presented to the subject per attempt. The number of parts presented per attempt was not a function of the number of client errors made on the previous attempt. Many more pre-response than correction prompts were used (6:1 ratio). This trainer gave

more visual than auditory pre-response prompts and no tactile correction prompts. When errors were made, the trainer corrected the client verbally. The Structured Whole Method required about the same average time as the trainer's Personal Method, but yielded substantially more errors. Again, because of the correction prompting requirements of the Structured Whole Method, more correction than pre-response prompts occurred. Overall, this trainer's method produced fewer errors, used more auditory and visual pre-prompts, and used fewer correction prompts than the Structured Whole Method in approximately the same amount of time.

It should be noted that one of the two clients never reached criterion by the Structured Whole Method within the required time limit. This accounted for the majority of errors in the Structured Whole Method for this trainer.

Trainer 4

Trainer 4's Personal Method resulted in four times as many errors as the Backward Chaining procedure (9:2). This trainer taught by a whole method in which more pre-response than correction prompts were given (5:1 ratio). Auditory and visual pre-prompts were used during assembly. Backward Chaining required about the same average time as the trainer's Personal Method, but resulted in fewer errors. Because of the pre-prompting requirements of the Backward Chaining Method, more pre-response than correction prompts were involved. Hence, both methods involved more pre-response than correction prompts. The trainer's method produced few errors, but the Backward Chaining Method resulted in even fewer errors in virtually the same amount of time.

Trainer 5

Trainer 5's Personal Method was a combination of chaining and whole procedures that resulted in three times as many errors as the Backward Chaining Method (63:18). The number of parts presented in the Personal Method varied unsystematically with all parts presented on some attempts and only a few parts on others. The trainer gave many more pre-response than correction prompts (2:1 ratio); most of these prompts were visual. In the Personal Method, this trainer gave more tactile correction prompts than any other trainer. Backward Chaining required an average of 29 minutes less to reach acquisition. Again, more pre-response than correction prompts occurred in Backward Chaining. In summary, both methods utilized many more pre-response than correction prompts, but this trainer's unsystematic teaching contributed to more errors and more time than Backward Chaining. The longer time was, in part, due to one of the subject's failure to reach criterion within the time limit on the two tasks taught by the trainer's Personal Method. However, when the trainer used the Backward Chaining procedure, this same subject attained mastery on both remaining tasks within the allotted time.

Trainer 6

Trainer 6's Personal Method produced eight times as many errors as Backward Chaining (25:3). This trainer's method consisted of a whole procedure in which all parts of the apparatus were assembled during each attempt. The trainer prompted to cue initial correct responses rather than to correct client errors (5:1 ratio). Virtually no tactile prompts were used. The Backward Chaining Method required about the same average time as the trainer's method, but yielded fewer errors. Again, because of the nature of the

Backward Chaining procedure used, many more pre-response than correction prompts occurred. Overall, Backward Chaining was more efficient than this trainer's Personal Method in terms of errors but was no more effective in terms of time. Both methods involved more pre than correction prompts.

As may be noted in Figure 1, no error data are reported for Trainer 6 on day 3. During the early part of this session with one client, the experimenter was called away for an emergency. Although the stop watch continued to run recording cumulative time, errors, prompts, trials, and consequences were not scored for a period of approximately 4 minutes. In Table 1 the totals for this trainer reflect all available data.

Consequences

Trainers used more praise in their own methods (mean = 45.7 per trainer per day) than in either the Structured Whole Method (mean = 17.0) or Backward Chaining (mean = 26.0). They used very few reprimands in all methods, Personal Method (mean = 1.3), Structured Whole (mean = 0.3), and Backward Chaining (mean = 0.0). The mean rate of praise during trainers' own methods was 0.82 per minute. The individual rates of praise for trainers 1 through 6 respectively were 0.87, 0.81, 1.04, 0.42, 1.00, and 0.78, when using their own approaches.

Discussion

Teaching strategies used by trainers in the field were analyzed and compared to two structured training methods. Results showed that three trainers used a whole method, two used a combination of whole and chaining, and one used a forward chaining procedure. Within individual trainers, when chaining procedures were introduced clients made fewer errors than in the whole methods. This was the case for both the Backward Chaining Method

taught to the trainers, as well as the forward chaining procedure used spontaneously by Trainer 1. These data coincide with other reports of the superiority of chaining over whole task training (Nettelbeck & Kirby, 1976; Walls, Zane, & Ellis, in press). There were no practical time differences among the methods.

Some trainers naturally used semblances of chaining, albeit often unsystematically. As noted, Trainer 1 used forward chaining more effectively that the Structured Whole Method. Trainer 3 trained both clients to mastery by a combination of whole and chaining, but was unsuccessful in teaching one of the clients by the Structured Whole Method. Trainer 5 was unable to teach one client (classified severely retarded) using his own whole method on the first day. Similarly, on the second day, after one hour and 45 errors, Trainer 5 switched spontaneously to a pure backward chain. At this juncture the client's error rate dropped from 2.3 errors per attempt to 0.4 errors per attempt. As prearranged, the trainer taught this client the following two days by the experimental Backward Chaining procedure. The client made 1/3 as many errors in 3/4 of the time as on each of the previous two days. In fact, this severely retarded client did not achieve mastery the first two days by the trainer's Personal Method but did achieve mastery when taught by Backward Chaining on the last two days.

The effectiveness of these training procedures appears to be due to two variables--the sequencing of task presentation and the timing of prompts. When comparing the two methods used by any trainer, the best training procedure (in terms of errors) was Backward Chaining with more pre-response than correction prompts. The worst training procedure was the Structured Whole Method with more

correction prompts than pre-response prompts. Intermediate in effectiveness was the whole task method with more pre-response than correction prompts. This rough continuum appears to operate with higher as well as lower functioning clients.

It is unclear whether "effectiveness" of a training procedure should be measured in terms of the number of errors made, total time to acquisition, or some other variable. The apparent aversiveness of errors and the possibility that errors may be detrimental to subsequent learning (Rilling, 1977) are arguments for errors as the critical measure. Increased errors require more trainer effort. If two training procedures require about the same amount of time, then a trainer will probably select the procedure which requires less effort.

When discriminations involve simply matching single responses (as in the present Backward Chaining with pre-response prompts), fewer distractors are presented. Basic instructional programming emphasizes critical components of a task while limiting the irrelevant stimuli. Strong pre-response prompting with few discriminative stimuli reduces errors to a greater extent than strong correction prompting with many potential parts and placements to discriminate among (as in the present Structured Whole Method).

Although these trainers generally were able to teach the tasks to the clients using their own methods, this study demonstrated that a selected structured teaching strategy can be more effective. The interaction of such strategies with other vocational tasks, component sequencing, and prompting combinations needs to be analyzed. If better approaches are found, it is important that trainers in the field actually use those methods when working with handicapped clients. A means for demonstrating better approaches would be to contrast the results of trainers' own methods with other specified procedures. Such demonstrations would provide a useful guide for improving how trainers train.

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Table 1

Experimental Design

		Day			
	Trainer	1	2	3	4
a.m.	1	Personal	Structured Whole	Structured Whole	Structured Whole
	2	Personal	Personal	Structured Whole	Structured Whole
	3	Personal	Personal	Personal	Structured Whole
p.m.	4	Personal	Backward Chaining	Backward Chaining	Backward Chaining
	5	Personal	Personal	Backward Chaining	Backward Chaining
	6	Personal	Personal	Personal	Backward Chaining

Tab

Prompts, Errors, T
by Traine

Trainer and Method	Pre-response Prompts[a] A	V	T	Total	A
Trainer 1					
Personal Method	130[b]	110	0	240	13
Structured Whole	0	32	0	32	25
Trainer 2					
Personal Method	41	105	0	146	8
Structured Whole	0	36	0	36	22
Trainer 3					
Personal Method	167	341	0	508	54
Sturctured Whole	0	32	0	32	281
Trainer 4					
Personal Method	33	26	0	59	7
Backward Chaining	29	61	29	119	0
Trainer 5					
Personal Method	38	197	1	236	53
Backward Chaining	48	82	45	175	1
Trainer 6[c]					
Personal Method	77	136	0	213	21
Backward Chaining	30	62	30	122	1

[a] Auditory (A); Visual (V); Tactile (T).

[b] Means for that method across all days taught b

[c] Not including approximately four minutes of tr

ble 2

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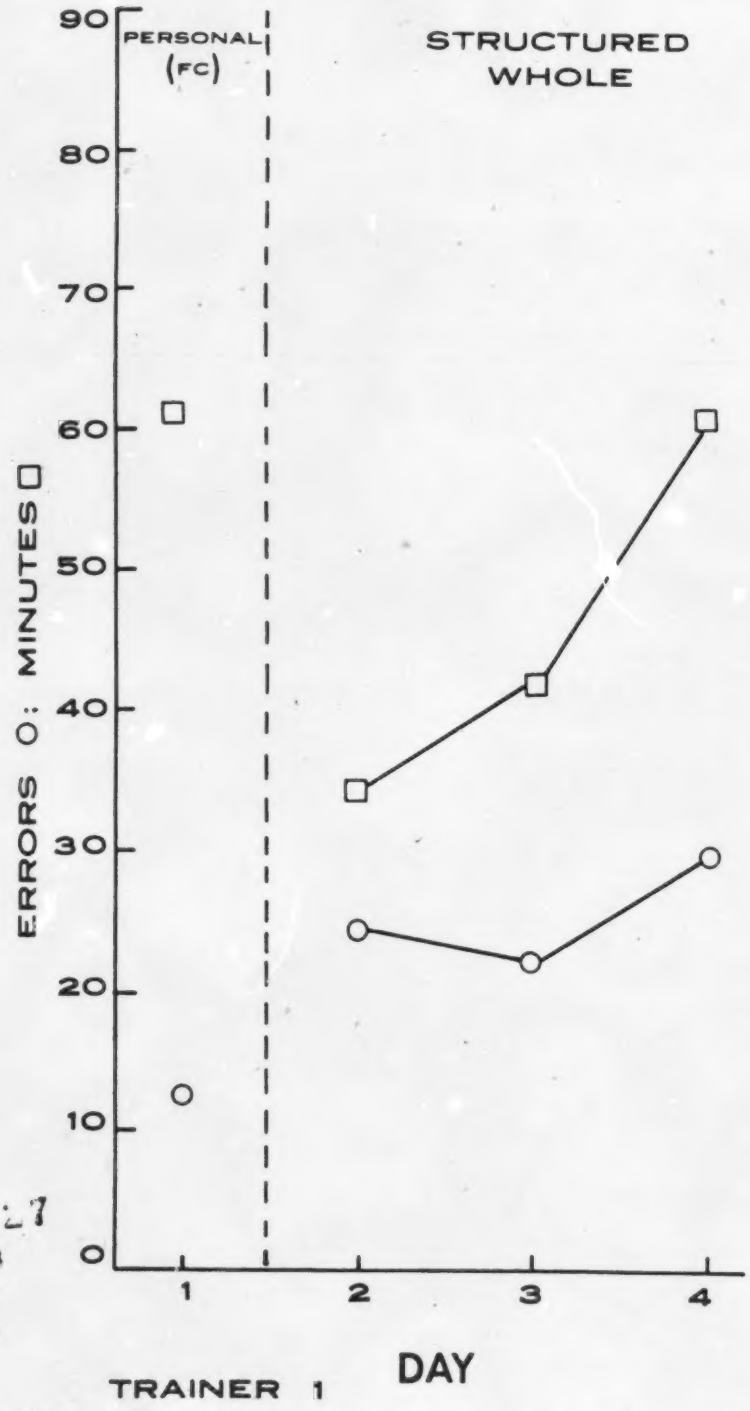
Correction Prompts[a]			Errors	Minutes	Consequences	
V	T	Total			Praise	Repremand
11	5	29	13[b]	61[b]	45[b]	0[b]
25	24	74	25	46	5	0
6	0	14	9	26	21	2
24	16	62	26	33	16	1
28	0	82	57	69	69	0
281	281	843	281	74	30	0
4	0	11	9	31	13	0
2	0	2	2	28	5	0
51	14	118	63	88	88	2
17	14	32	18	59	54	0
17	1	39	25	49	38	4
2	1	4	3	42	19	0

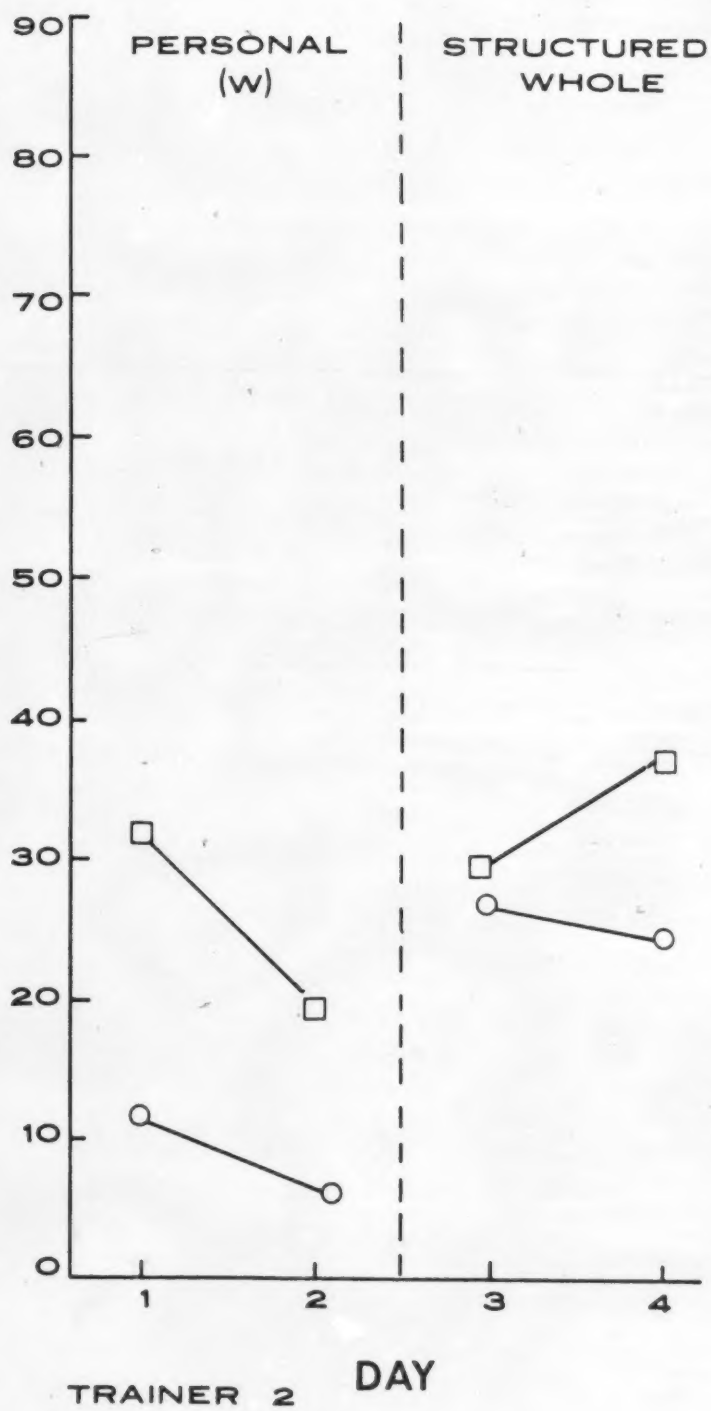
y that method (see text for examples).

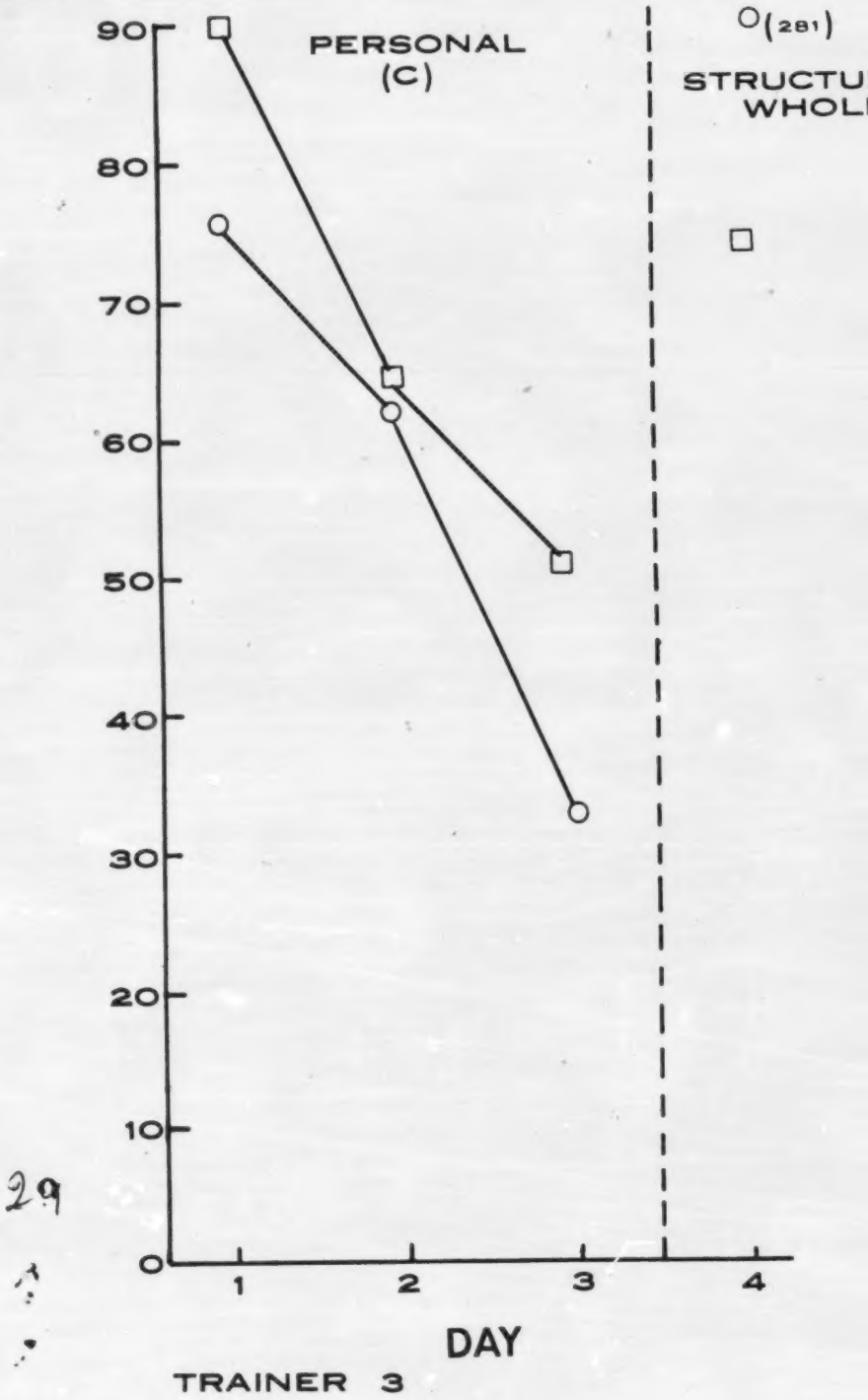
aining due to an emergency (see text).

Figure Caption

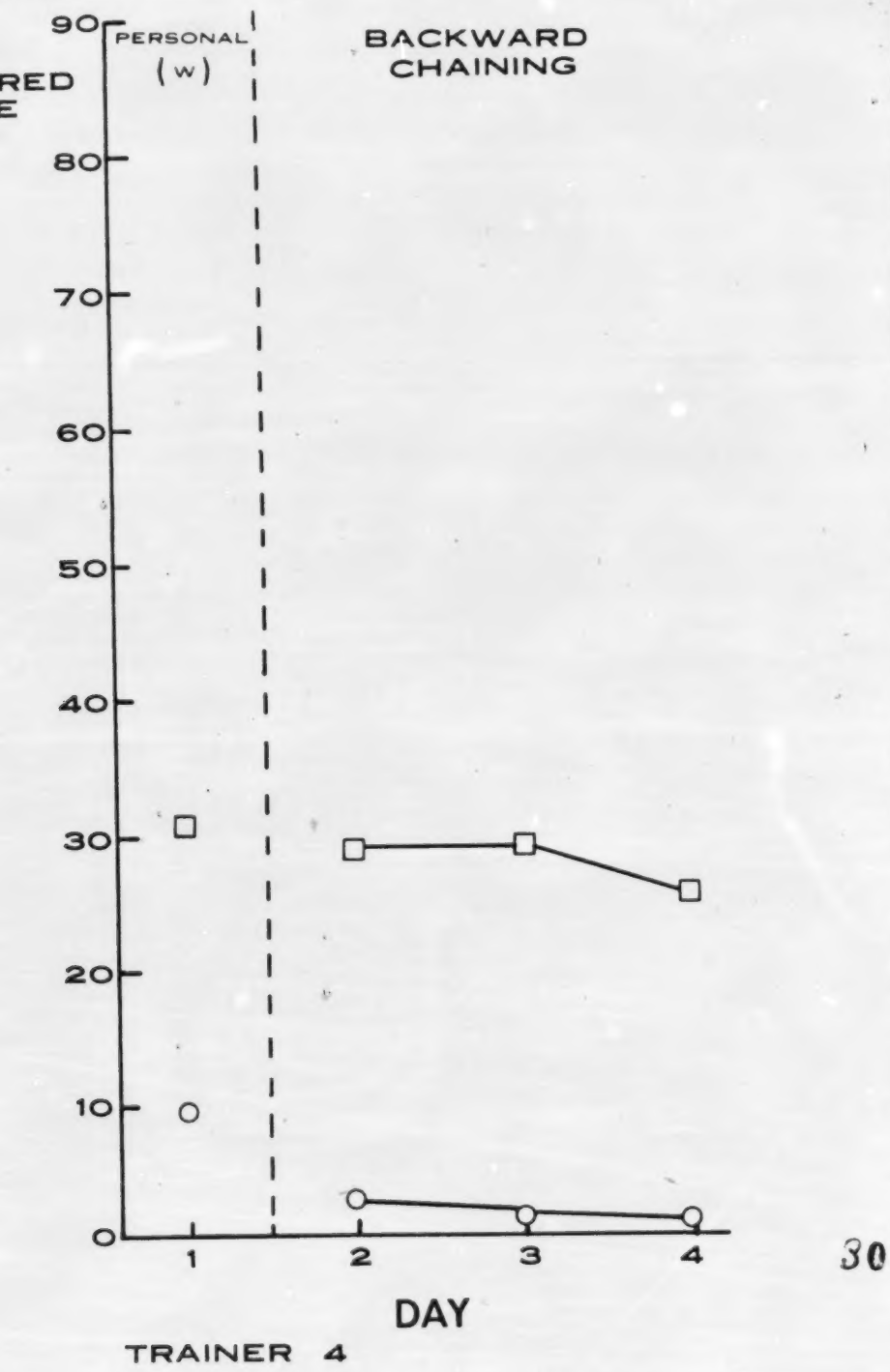
Figure 1. Total errors and minutes across two clients for trainers' Personal Methods (whole, W; forward chaining, FC; combination, C), the Structured Whole Method, and the Backward Chaining Method.

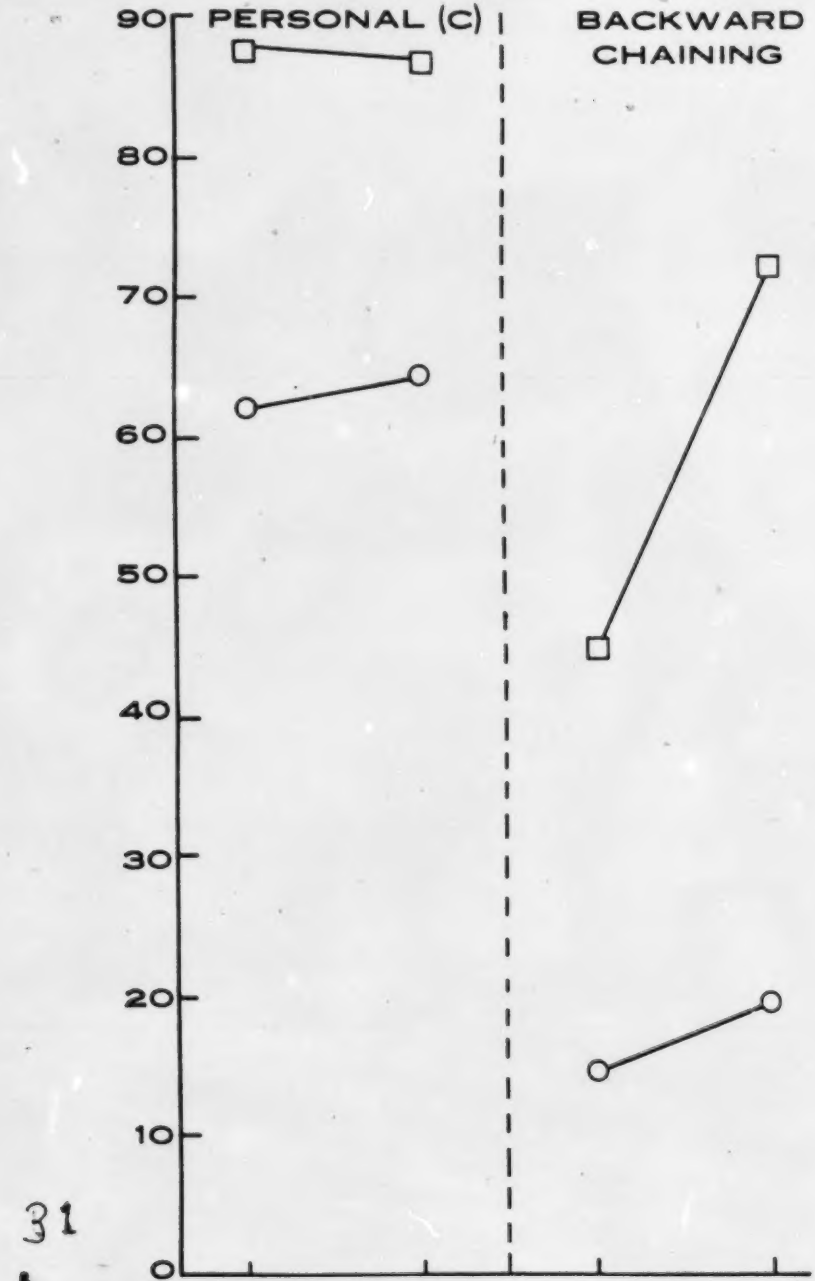

PERSONAL
(FC)
STRUCTURED
WHOLE
ERRORS O: MINUTES □
0
10
20
30
40
50
60
70
80
90
1
2
3
4
DAY
TRAINER 1


PERSONAL
(W)
STRUCTURED
WHOLE
0
10
20
30
40
50
60
70
80
90
1
2
3
4
DAY
TRAINER 2

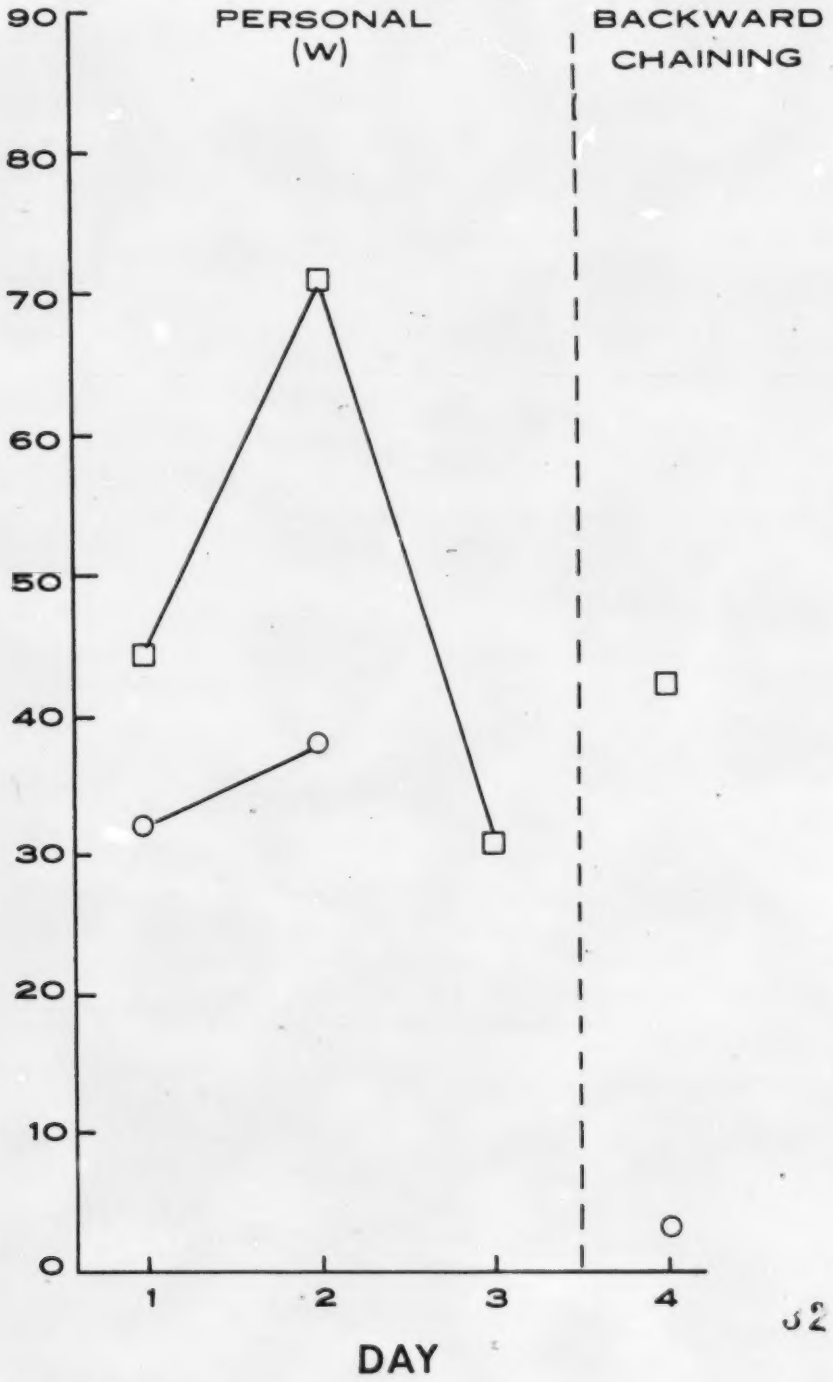

PERSONAL
(C)
○(281)
STRUCTU
WHOL
□
90
80
70
60
50
40
30
20
10
0
1
2
3
4
DAY
TRAINER 3

29


RED
E
90
PERSONAL
(W)
BACKWARD
CHAINING
80
70
60
50
40
30
20
10
0
1
2
3
4
DAY
TRAINER 4


PERSONAL (C)
BACKWARD CHAINING
90
80
70
60
50
40
30
20
10
0
1
2
3
4
DAY

TRAINER 5


PERSONAL
(W)
BACKWARD
CHAINING
90
80
70
60
50
40
30
20
10
0
1
2
3
4
DAY

52

TRAINER 6